REFERENCES 73

[65] G. S. Kc, A. D. Keromytis, and V. Prevelakis, "Countering code-injection attacks with instruction-set randomization," in *Proc. of CCS*, pp. 272–280, 2003.

- [66] E. G. Barrantes, D. H. Ackley, S. Forrest, T. S. Palmer, D. Stefanovic, and D. D. Zovi, "Randomized instruction set emulation to disrupt binary code injection attacks," in *Proc. CCS*, pp. 281–289, 2003.
- [67] M. Chew and D. Song, "Mitigating buffer overflows by operating system randomization," Tech. Rep. CS-02-197, Carnegie Mellon University, 2002.
- [68] D. Couroussé, T. Barry, B. Robisson, P. Jaillon, O. Potin, and J.-L. Lanet, "Runtime code polymorphism as a protection against side channel attacks," in IFIP International Conference on Information Security Theory and Practice, pp. 136–152, Springer, 2016.
- [69] S. Cao, N. He, Y. Guo, and H. Wang, "WASMixer: Binary Obfuscation for WebAssembly," arXiv e-prints, p. arXiv:2308.03123, Aug. 2023.
- [70] V. Le, M. Afshari, and Z. Su, "Compiler validation via equivalence modulo inputs," in *Proceedings of the 35th ACM SIGPLAN Conference on Programming Language Design and Implementation*, PLDI '14, p. 216–226, 2014.
- [71] B. Churchill, O. Padon, R. Sharma, and A. Aiken, "Semantic program alignment for equivalence checking," in *Proceedings of the* 40th ACM SIGPLAN Conference on Programming Language Design and Implementation, PLDI 2019, (New York, NY, USA), p. 1027–1040, Association for Computing Machinery, 2019.
- [72] N. Harrand, C. Soto-Valero, M. Monperrus, and B. Baudry, "Java decompiler diversity and its application to meta-decompilation," *Journal of Systems and Software*, vol. 168, p. 110645, 2020.
- [73] L. de Moura and N. Bjørner, "Z3: An efficient smt solver," in Tools and Algorithms for the Construction and Analysis of Systems (C. R. Ramakrishnan and J. Rehof, eds.), (Berlin, Heidelberg), pp. 337–340, Springer Berlin Heidelberg, 2008.
- [74] P. M. Phothilimthana, A. Thakur, R. Bodik, and D. Dhurjati, "Scaling up superoptimization," SIGARCH Comput. Archit. News, vol. 44, p. 297–310, mar 2016.
- [75] M. Zalewski, "American fuzzy lop," 2017.
- [76] R. El-Khalil and A. D. Keromytis, "Hydan: Hiding information in program binaries," in *Information and Communications Security* (J. Lopez, S. Qing, and E. Okamoto, eds.), (Berlin, Heidelberg), pp. 187–199, Springer Berlin Heidelberg, 2004.

74 REFERENCES

[77] V. Singhal, A. A. Pillai, C. Saumya, M. Kulkarni, and A. Machiry, "Cornucopia: A framework for feedback guided generation of binaries," in *Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering*, ASE '22, (New York, NY, USA), Association for Computing Machinery, 2023.

- [78] B. Cox, D. Evans, A. Filipi, J. Rowanhill, W. Hu, J. Davidson, J. Knight, A. Nguyen-Tuong, and J. Hiser, "N-variant systems: a secretless framework for security through diversity," in *Proc. of USENIX Security Symposium*, USENIX-SS'06, 2006.
- [79] D. Bruschi, L. Cavallaro, and A. Lanzi, "Diversified process replicae for defeating memory error exploits," in *Proc. of the Int. Performance, Computing, and Communications Conference*, 2007.
- [80] B. Salamat, A. Gal, T. Jackson, K. Manivannan, G. Wagner, and M. Franz, "Stopping buffer overflow attacks at run-time: Simultaneous multi-variant program execution on a multicore processor," tech. rep., Technical Report 07-13, School of Information and Computer Sciences, UCIrvine, 2007.
- [81] L. Davi, C. Liebchen, A.-R. Sadeghi, K. Z. Snow, and F. Monrose, "Isomeron: Code randomization resilient to (just-in-time) return-oriented programming," in NDSS, 2015.
- [82] G. Agosta, A. Barenghi, G. Pelosi, and M. Scandale, "The MEET approach: Securing cryptographic embedded software against side channel attacks," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, vol. 34, no. 8, pp. 1320–1333, 2015.
- [83] T. Jackson, B. Salamat, A. Homescu, K. Manivannan, G. Wagner, A. Gal, S. Brunthaler, C. Wimmer, and M. Franz, "Compiler-generated software diversity," in *Moving Target Defense*, pp. 77–98, Springer, 2011.
- [84] A. Amarilli, S. Müller, D. Naccache, D. Page, P. Rauzy, and M. Tunstall, "Can code polymorphism limit information leakage?," in *IFIP International Workshop on Information Security Theory and Practices*, pp. 1–21, Springer, 2011.
- [85] A. Voulimeneas, D. Song, P. Larsen, M. Franz, and S. Volckaert, "dmvx: Secure and efficient multi-variant execution in a distributed setting," in *Proceedings of the 14th European Workshop on Systems Security*, pp. 41–47, 2021.
- [86] I. Bow, N. Bete, F. Saqib, W. Che, C. Patel, R. Robucci, C. Chan, and J. Plusquellic, "Side-channel power resistance for encryption algorithms using implementation diversity," *Cryptography*, vol. 4, no. 2, 2020.